What is claimed is:

1. An optical interconnection device comprising:

at least one input light source, said input light source adapted to introduce at least one individual light beam, each said individual light beam emerging from a respective input light source;

a first optical configuration, said first optical configuration comprising a first plurality of optical elements so as to define a plurality of possible light paths for each said individual light beam, said first optical configuration adapted to receive each said individual light beam emerging from each said input light source, said first optical configuration further adapted to direct a given light beam to a spatial light modulator;

a second optical configuration, said second optical configuration comprising a second plurality of optical elements configured so as to define a plurality of possible light paths for each said individual light beam, said second optical configuration further comprising at least one spot displacement device, said second optical configuration adapted to receive as input an individual light beam reflected from said spatial light modulator, said second optical configuration further adapted to direct a given light beam to said spatial light modulator;

a spatial light modulator, said spatial light modulator comprising at least one column, each said column comprising at least two rows, said spatial light modulator adapted to select a given path from said plurality of possible light paths for a given light beam, wherein said spot displacement device is capable of shifting a given light beam on said spatial light modulator by at least one row; and

a plurality of output positions, each of said plurality of output positions adapted to receive a light beam.

2. An optical interconnection device according to claim 1 wherein each said light beam traverses said optical interconnection device in a similar period of time as all other light beams.

3. An optical interconnection device according to claim 1 wherein a given light beam is directed to a given output position by said first optical configuration.

4. An optical interconnection device according to claim 1 wherein a given light beam is directed to a given output position by said second optical configuration.

5. An optical interconnection device according to claim 1 wherein a given light beam is directed to a given output position by said spatial light modulator.

6. An optical interconnection device according to claim 1 wherein said first optical configuration additionally comprises at least one spot displacement device.

7. An optical interconnection device according to claim 1 wherein said first plurality of optical elements comprises at least one optical element selected from the group consisting of mirrors, lenses, gratings, and prisms.

8. An optical interconnection device according to claim 1 wherein said second plurality of optical elements comprises at least one optical element selected from the group consisting of mirrors, lenses, gratings, and prisms.

9. An optical interconnection device according to claim 1 wherein each said spot displacement device comprises at least one column, each said spot displacement device being capable of shifting a given light beam by at least one row on said spot displacement device and thus on said spatial light modulator, each additional column of said spot displacement device capable of displacing said light beam by at least twice the displacement of the previous column.

10. An optical interconnection device according to claim 1 wherein each said spatial light modulator is selected from the group consisting of: liquid crystal spatial light modulators, two-state micro-electro-mechanical machine devices, and three-state micro-electro-mechanical machine devices.

11. An optical interconnection device comprising:

at least one input light source, said input light source adapted to introduce at least one individual light beam, each said individual light beam emerging from a respective input light source;

a first optical configuration, said first optical configuration comprising a first plurality of optical elements so as to define a plurality of possible light paths for each said individual light beam, said first optical configuration further comprising at least one spot displacement device, said first optical configuration adapted to receive each said individual light beam emerging from each said input light source, said first optical configuration further adapted to direct a given light beam to a spatial light modulator;

a second optical configuration, said second optical configuration comprising a second plurality of optical elements configured so as to define a plurality of

possible light paths for each said individual light beam, said second optical configuration adapted to receive as input an individual light beam reflected from said spatial light modulator, said second optical configuration further adapted to direct a given light beam to said spatial light modulator;

a spatial light modulator, said spatial light modulator comprising at least one column, each said column comprising at least two rows, said spatial light modulator adapted to select a given path from said plurality of possible light paths for a given light beam, wherein said spot displacement device is capable of shifting a given light beam on said spatial light modulator by at least one row; and

a plurality of output positions, each of said plurality of output positions adapted to receive a light beam.

12. An optical interconnection device according to claim 11 wherein each said light beam traverses said optical interconnection device in a similar time period as all other light beams.

13. An optical interconnection device according to claim 11 wherein a given light beam is directed to a given output position by said first optical configuration.

14. An optical interconnection device according to claim 11 wherein a given light beam is directed to a given output position by said second optical configuration.

15. An optical interconnection device according to claim 11 wherein a given light beam is directed to a given output position by said spatial light modulator.

16. An optical interconnection device according to claim 11 wherein said second optical configuration additionally comprises at least one spot displacement device.

17. An optical interconnection device according to claim 11 wherein said first plurality of optical elements comprises at least one optical element selected from the group consisting of mirrors, lenses, gratings, and prisms.

18. An optical interconnection device according to claim 11 wherein said second plurality of optical elements comprises at least one optical element selected from the group consisting of mirrors, lenses, gratings, and prisms.

19. An optical interconnection device according to claim 11 wherein each said spot displacement device comprises at least one column, each said spot displacement device being capable of shifting a given light beam by at least one row on said spot displacement device and thus on said spatial light modulator, each additional column of said spot displacement device capable of displacing said light beam by at least twice the displacement of the previous column.

20. An optical interconnection device according to claim 11 wherein each said spatial light modulator is selected from the group consisting of: liquid crystal spatial light modulators, two-state micro-electro-mechanical machine devices, and three-state micro-electro-mechanical machine devices.

21. A spot displacement device comprising at least one column, said spot displacement device being capable of shifting a light beam by at least one row on

said spot displacement device, each additional column of said spot displacement device capable of displacing said light beam by at least twice the displacement of the previous column.